PTO/S8/96 (08-00)

Approved for Local through 10/31/2002. OM8 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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STATEMENT	UNDER 37 CFR 3.73(b)
Applicant/Patent Owner: David Miller, Lilac Muller and	d Robert L. Anderson
Application No./Patent No.:	Filed/Issue Date:
Entitled: SYSTEMS AND METHODS FOR OVERCO	
	Delaware Corporation
	pe of Assignee, e.g., corporation, partnership, university, government agency, etc.)
states that it is:	
1. X the assignee of the entire right, title, and	interest; or
2. an assignee of an undivided part interest	
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B. A chain of title from the inventor(s), of the pater shown below:	nt application/patent identified above, to the current assignee as
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	nent document or a true copy of the original document) rdance with 37 CFR Part 3, if the assignment is to be
The undersigned (whose title is supplied below) is em	powered to sign this statement on behalf of the assignee.
February 25, 2002	All Signature
	Steven Georgis
	Typed or printed name President and CEO
	Title

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David Miller et al.

PTO/SB/81 (02-01)

Approved for use through 10/31/2002. OMB 0651-0035

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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Application Numb r

First Named Inventor

Filing Date

POWER OF ATTORNEY OR	First Nam	ed Inventor	David Willer et al.	
AUTHORIZATION OF AGENT	Title		SYSTEMS AND ME OVERCOMING STI	
•	Group Art	Unit		
· .	Examiner	Name		
	Attorney [Docket Numbe	er 19930-002800	
I hereby appoint:			Place Customer	
Practitioners at Customer Number 20350 OR Practitioner(s) named below: Registration Number Registration Number				
Practitioner(s) named below:	·			
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as my/our attorney(s) or agent(s) to prosecute the application identified above, and to transact all pusiness in the United States Patent and Trademark Office connected therewith.				
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I am the: Applicant/Inventor. Assignee of record of the entire interes	it. See 37 CFR 3.	71.		
Statement under 37 CFR 3.73(b) is end	losed. (Form PTC	VSB/96).		
SIGNA	TURE of Applica	nt or Assignee	of Record	<u> </u>
Name Steven beorg	is .			· .
Signature /////	e	_		
Date February 25.	2002			
NOTE: Signatures of all the inventors or as Submit multiple forms if more than one sign			terest or their representativ	e(s) are required.
▼Total of ONE form is submitted.				

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Attorney Docket No.: 19930-002800

As the below named inventor(s), I/we declare that:



Approved for use through 10/31/2002, OMB 0851-0032 U.S. Patent and Trademark Office, U.S. DEPARTMENT OF COMMERCE

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DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76)

This declaration is dir	ected to:			
	\boxtimes	The attached application	on, or	
•		Application No. , filed	on ,	
		as amended on	(if applicable);	•
I/we believe that I/we and for which a paten			ntor(s) of the subject matt	er which is claimed
		rstand the contents of the nendment specifically rel	he above-identified applic ferred to above;	ation, including the
information known to material information v	me/us t	o be material to patent came available between	ed States Patent and Tr ability as defined in 37 C the filing date of the prior ation-in-part application, if	FR 1.56, including application and the
information and belief knowledge that willful	f are belie I false sta	eved to be true, and furth itements and the like are	ge are true, all statemen ner that these statements punishable by fine or imp dity of the application or	were made with the prisonment, or both,
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FULL NAME OF INVE	NTOR(S))		
FULL NAME OF INVE	NTOR(S)		Date:	02/22/62
				02/22/62 I States
Inventor 1 Signature: Inventor 2		Miller		
Inventor 1 Signature:		Miller	Citizen of: United	1 States
Inventor 1 Signature: Inventor 2	David Lilac M	Miller	Citizen of: United	2/24/02
Inventor 1 Signature: Inventor 2 Signature:	David Lilac M	Miller Muller Muller	Citizen of: United Date: Citizen of: United	1 States 2/24/02 1 States 02/22/02
Inventor 1 Signature: Inventor 2 Signature: Inventor 3	David Lilac M	Miller Muller Muller	Citizen of: United Date: Citizen of: United Date:	1 States 2/24/02 1 States 02/22/02
Inventor 1 Signature: Inventor 2 Signature: Inventor 3 Signature:	David Lilac M	Miller Muller Muller	Citizen of: United Date: Date: Date: Date: Date:	1 States 2/24/02 1 States 02/22/02

Burden Hour Statement: This collection of information is required by 35 U.S.C. 115 and 37 CFR 1.63. The information is used by the public to file (and the PTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This form is estimated to take 1 minute to complete. This time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

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Tab settings	V V		
Name of conveying party(ies):	2. Name and address of receiving party(ies)		
David Miller February 22, 2002	Name: Network Photonics, Inc.		
Additional name(s) of conveying parties attached? ☐ Yes ☐ No.	Internal Address:		
Nature of conveyance:	Street Address: 4775 Walnut Street. Suite C		
	City: Boulder State: CO ZIP: 80301		
U.S. Patent and Trademark Office (v. 5/31/2002) PATENTS ONLY To the Honorable Commissioner of Patents and Trademarks. Please record the attached original documents or copy thereof To the Honorable Commissioner of Patents and Trademarks. Please record the attached original documents or copy thereof 2. Name and address of receiving party(ies): David Miller February 22, 2002 Name: Network Photonics, Inc. Internal Address: Street Address: 4775 Walnut Street, Suite C City: Boulder State: CO ZIP: 80301 City: Boulder State: CO ZIP: 80301 Additional names and addresses attached? ☐ Yes ☒ No Additional names and addresses attached? ☐ Yes ☒ No Additional names and addresses attached? ☐ Yes ☒ No Additional names and addresses attached? ☐ Yes ☒ No Additional names and addresses attached? ☐ Yes ☒ No Additional names and addresses attached? ☐ Yes ☒ No Additional names and addresses attached? ☐ Yes ☒ No Additional names and addresses attached? ☐ Yes ☒ No Additional names and addresses attached? ☐ Yes ☒ No Additional names and addresses attached? ☐ Yes ☒ No Additional names and addresses attached? ☐ Yes ☒ No Additional names and addresses attached? ☐ Yes ☒ No Additional names and addresses attached? ☐ Yes ☒ No Additional names and addresses attached? ☐ Yes ☒ No Additional names and addresses attached? ☐ Yes ☒ No B. Patent No(s): B. Patent No(s): Additional names and addresses attached? ☐ Yes ☒ No Additional names and addresses attached? ☐ Yes ☒ No B. Patent No(s): Additional names and addresses attac			
Other:	Additional names and addresses attached? ☐ Yes ☒ No		
U.S. Patent and Trademark Office Uses 10 to the horselbe Commissioner of Patents and Trademarks. Please record the attached original documents or copy thereof 1. Name of conveying party(ies): David Miller February 22, 2002 Additional name(s) of conveying parties attached? ☑ vs. ☐ Name and address of receiving party(ies) Name: Network Photonics. Inc. ☐ Internal Address: 4775 Walnut Street. Suite C City: Boulder ☑ State: CO ☑ 2IP: 80301 Execution Date: February 22 and 25, 2002 4. Application number(s) or patent number(s). If this document is being filled together with a new application, the execution date of the application is: February 22 & 26, 2002 A. Patent Application No(s): ☐ B. Patent No(s): Additional numbers attached? ☐ Yes ☐ No 5. Name and address of party to whom correspondence concerning document should be mailed: Name: Douglas M. Hamilton TOWNSEND AND TOWNSEND AND CREW LLP Two Embarcadero Center, 8° Floor San Francisco, California 94111-3834 (Attach duplicate copy of this page if paying by deposit account) DO NOT USE THIS SPACE 9. Statement and signature. To the best of my knowledge and belief, the foregoing is true and correct and any attached copy is a true of copy of the original document. Signature ☐ Douglas M. Hamilton Name of Person Signing ☐ Signature ☐ Date			
Application number(s) or patent number(s).			
If this document is being filed together with a new application, the	e execution date of the application is: February 22 & 26, 2002		
A. Patent Application No(s):	B. Patent No(s):		
Additional numbers atta	ched? ☐ Yes ⊠ No		
	Total number of applications and patents involved One		
concerning document should be mailed:			
	7. Total fee (37 CFR 3.41):\$40.00		
Two Embarcadero Center, 8 th Floor	☐ Enclosed		
	☑ Authorized to be charged to deposit account		
	Deposit account number: 20-1430		
To the Honorable Commissioner of Patents and Trademarks. Please record the stached original documents or copy thereof Name of conveying party(les): David Miller February 22, 2002 Security Miller February 22, 2002 Settional name(s) of conveying parties attached? Yes No.			
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	nd correct and any attached copy is a true of copy of the original		
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Additional name(s) of conveying party(ies): (Continued from Page 1)

Lilac Muller Robert L. Anderson

February 26, 2002 February 22, 2002

- Additional name(s) and address(es) of receiving party(ies): (Continued from Page 1)
- Additional application number(s) or patent number(s):
 (Continued from Page 1)

A. Patent Application No.(s)

B. Patent No.(s)

DE 7058406 v l

Attorney Docket No.: 19930-002800

ASSIGNMENT OF PATENT APPLICATION

JOINT

· · · · · · · · · · · · · · · · · · ·
WHEREAS, David Miller of 1035 South Boulder Road, #115, Louisville, CO 80027; Lilac
Muller of 96 Canon Park Drive, Boulder, CO 80302; and Robert L. Anderson of 1011 Rainbow Way, Boulder,
CO 80303; hereinafter referred to as "Assignors," are the inventors of the invention described and set forth in
the below-identified application for United States Letters Patent:
· · · · · · · · · · · · · · · · · · ·

CO 80303; here the below-identi	inafter referred to as "Assi ified application for United	ignors," are t d States Lette	he inventors of the i rs Patent:	nvention describe	d and set forth in
	Title of Invention:	SYSTEM STICTION	S AND METHODS N	FOR OVERCOM	ING
	Date(s) of execution of I	Declaration:	February 22	, 2002; Feb	ruary 26,20
. *	Filing Date:	_/_/_			
	Application No.:	· ·	· · · · · · · · · · · · · · · · · · ·	; and	•
interest in the in on the same; Assignors have a invention and apand in and to an States and all co Paris Convention and assigns as funct been made, it division, renewathereof. (a) cooperate with the cooperate with the same in the same; (a) cooperate with the same;	WHEREAS, Network Plante C, Boulder, CO, 8030 vention and application and For good and valuable coassigned, and by these presplication and to all foreign y Letters Patent and Regist untries throughout the worn. The right, title and intendily and exclusively as it was for the full term of any Letters and the form of the full term of the full term of the continuation in whole or the Assignors further agree to the Assignee in the prosecution.	onsideration, sents do assign counterpart trations which rest is to be hould have betters Patent are in part, substitution of U.S. 1	referred to as "AS". Letters Patent and receipt of which is on to Assignee all rist (including patent, in may hereafter be going the priority from ald and enjoyed by the held and enjoyed at Registrations which the priority from	SIGNEE," is designed and intercept acknowled ght, title and intercept in the same of the application a Assignee and Assignee and Assignee, prolongs Assignee, but at A and foreign counter.	dged by Assignors, est in and to the industrial designs), he in the United is provided by the signee's successors d this Assignment d thereon, or of any ation or extension assignee's expense, exparts on the
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	IN TESTIMONY WHER	REOF, Assig	nors have signed the	ir names on the d	ates indicated.
Dated: 02/2	2/01	. (()- m	ellen.	
		· / 7	David	i Miller	
Dated: $\frac{2}{2}$	26/02	_	Kille !	Miller	
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Dated: 02/22/02

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JULY 29, 2003 -

PTAS

TOWNSEND AND TOWNSEND AND CREW LLP DAVID N. SLONE TWO EMBARCADERO CENTER, 8TH FLOOR SAN FRANCISCO, CA 94111-3834

UNITED STATES DEPARTMENT OF COMMERCE Patent and Trademark Office ASSISTANT SECRETARY AND COMMISSIONER OF PATENTS AND TRADEMARKS Washington, D.C. 20231

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RECORDATION DATE: 07/25/2003

REEL/FRAME: 013828/0575

NUMBER OF PAGES: 11

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

NETWORK PHOTONICS, INC.

DOC DATE: 06/17/2003

ASSIGNEE:

PTS CORPORATION, A DELAWARE CORPORATION 101 INNOVATION DRIVE

SAN JOSE, CALIFORNIA 95134

SERIAL NUMBER: 10148710

PATENT NUMBER:

PATENT NUMBER:

SERIAL NUMBER: 10278182

SERIAL NUMBER: 09551256

PATENT NUMBER:

SERIAL NUMBER: 09658158

PATENT NUMBER:

FILING DATE: 11/18/2002

ISSUE DATE:

FILING DATE: 10/21/2002

ISSUE DATE:

FILING DATE: 04/18/2000.

ISSUE DATE:

FILING DATE: 09/08/2000

ISSUE DATE:

013828/0575 PAGE 2

SERIAL NUMBER: 09747064 FILING DATE: 12/20/2000 PATENT NUMBER: ISSUE DATE: SERIAL NUMBER: 10241105 FILING DATE: 09/10/2002 PATENT NUMBER: ISSUE DATE: SERTAL NUMBER: 09706489 FILING DATE: 11/03/2000 PATENT NUMBER: ISSUE DATE: FILING DATE: 02/12/2002 SERIAL NUMBER: 10076182 ISSUE DATE: PATENT NUMBER: SERIAL NUMBER: 10171434 FILING DATE: 06/12/2002 PATENT NUMBER: ISSUE DATE: SERIAL NUMBER: 60363724 FILING DATE: 03/11/2002 PATENT NUMBER: ISSUE DATE: FILING DATE: 09/12/2002 SERIAL NUMBER: 10243924 ISSUE DATE: PATENT NUMBER: FILING DATE: 02/13/2001 SERIAL NUMBER: 09782882 ISSUE DATE: PATENT NUMBER: SERIAL NUMBER: 09859069 FILING DATE: 05/15/2001 PATENT NUMBER: ISSUE DATE: SERIAL NUMBER: 10161838 FILING DATE: 06/03/2002 ISSUE DATE: PATENT NUMBER: SERIAL NUMBER: 60252784 FILING DATE: 11/22/2000 PATENT NUMBER: ISSUE DATE: SERIAL NUMBER: 09799916 FILING DATE: 03/05/2001 PATENT NUMBER: ISSUE DATE: SERIAL NUMBER: 09899013 FILING DATE: 07/03/2001 ISSUE DATE: PATENT NUMBER: SERIAL NUMBER: 09899002 FILING DATE: 07/03/2001 ISSUE DATE: PATENT NUMBER: FILING DATE: 07/03/2001 SERIAL NUMBER: 09899001 ISSUE DATE: PATENT NUMBER: SERIAL NUMBER: 10300438 FILING DATE: 11/19/2002 ISSUE DATE: PATENT NUMBER: SERIAL NUMBER: 10087040 FILING DATE: 02/28/2002 PATENT NUMBER: ISSUE DATE: SERIAL NUMBER: 09899014 FILING DATE: 07/03/2001 PATENT NUMBER: ISSUE DATE:

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SERIAL NUMBER: 09898988 FILING DATE: 07/03/2001

PATENT NUMBER: ISSUE DATE:

SERIAL NUMBER: 09899104 FILING DATE: 07/06/2001

PATENT NUMBER: ISSUE DATE:

 SERIAL NUMBER: 09880230
 FILING DATE: 06/12/2001

 PATENT NUMBER: 6600591
 ISSUE DATE: 07/29/2003

SERIAL NUMBER: 09954662 FILING DATE: 09/12/2001

PATENT NUMBER: ISSUE DATE:

SERIAL NUMBER: 10216600 FILING DATE: 08/09/2002

PATENT NUMBER: ISSUE DATE:

SERIAL NUMBER: 09941325 FILING DATE: 08/28/2001

PATENT NUMBER: ISSUE DATE:

SERIAL NUMBER: 10093844 FILING DATE: 03/08/2002

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SERIAL NUMBER: 10279388 FILING DATE: 10/23/2002

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SERIAL NUMBER: 10118070 FILING DATE: 04/05/2002

PATENT NUMBER: ISSUE DATE:

SERIAL NUMBER: 10099392 FILING DATE: 03/13/2002

PATENT NUMBER: ISSUE DATE:

SERIAL NUMBER: 10098805 FILING DATE: 03/13/2002

PATENT NUMBER: ISSUE DATE:

SERIAL NUMBER: 10306826 FILING DATE: 11/26/2002

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SERIAL NUMBER: 10808789 FILING DATE:

PATENT NUMBER: ISSUE DATE:

SERIAL NUMBER: 10095794 FILING DATE: 03/11/2002

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SERIAL NUMBER: 10093843 FILING DATE: 03/08/2002

PATENT NUMBER: ISSUE DATE:

SERIAL NUMBER: 10150810 FILING DATE: 05/17/2002

PATENT NUMBER: ISSUE DATE:

013828/0575 PAGE 4

SERIAL NUMBER: 10126189

PATENT NUMBER:

SERIAL NUMBER: 10401416

PATENT NUMBER:

SERIAL NUMBER: 10147181

PATENT NUMBER:

SERIAL NUMBER: 10242213

PATENT NUMBER:

SERIAL NUMBER: 10262404

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SERIAL NUMBER: 09442061

PATENT NUMBER: 6501877

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SERIAL NUMBER: 06275888

PATENT NUMBER: 4381387

SERIAL NUMBER: 09837362

PATENT NUMBER: 6525352

SERIAL NUMBER: 09899000

PATENT NUMBER: 6535319

SERIAL NUMBER: 09941998

PATENT NUMBER: 6439728

SHARON LATIMER, EXAMINER ASSIGNMENT DIVISION

FILING DATE: 04/19/2002

ISSUE DATE:

FILING DATE: 03/28/2003

ISSUE DATE:

FILING DATE: 05/15/2002

ISSUE DATE:

FILING DATE: 09/12/2002

ISSUE DATE:

FILING DATE: 09/30/2002

ISSUE DATE:

FILING DATE: 11/16/1999

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FILING DATE: 12/20/2000

ISSUE DATE: 04/01/2003

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ISSUE DATE: 03/18/2003

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ISSUE DATE: 09/10/2002

FILING DATE: 09/26/2000

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FILING DATE: 12/21/2000

ISSUE DATE: 12/03/2002

FILING DATE: 06/22/1981

ISSUE DATE: 04/26/1983

FILING DATE: 04/18/2001

ISSUE DATE: 02/25/2003

FILING DATE: 07/03/2001

ISSUE DATE: 03/18/2003

FILING DATE: 08/28/2001

ISSUE DATE: 08/27/2002

OFFICE OF PUBLIC RECORDS

TC-PA 658-327-2477 0772572003 700037867

Attorney Docket No. 019930-000000US

(0 40.03)	Cover Sheet ONLY	U.S. Department of Commerce U.S. Patent and Trademark Office	
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To the Honorable Commissioner of Patents 1. Name of conveying party(les):	and Trademarks. Place	■se record the ≋teched ongo Name and address of re	nei occuments or copy thenical
Network Photonics, Inc.		Name: PTS Corporati	
Additional name(s) of conveying party(ies) attached?	Ves M No	Internal Address: A Del	aware Corporation
Nature of conveyance:	163 23 140.		·
∴ ⊠ Assignment ☐ Merge	er	Street Address: 101 Int	lovation Drive
	ge of Name	City: San Jose	State: CA ZIP: 95134
☐ Other:	A	dditional name(s) and add	ress(es) attached? Tyes No
Execution Date: June 17, 2003		<u> </u>	
 Application number(s) or patent number(s): 			
If this document is being filed together with a ne	w application, the e	xecution date of the applic	ation is:
A. Patent Application No(s):	В	. Patent No(s):	
10/148,710		6,501,877	
10/278,182		6,542,657	
09/551,256		6,535,664	
09/658,158	.*	6,449,096	
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Name and address of party to whom correspond concerning document should be mailed:	ndence 6	. Total number of applica	dons and patents involved: 55
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Name: David N. Slone		. Total fee (37 CFR 3.41)	\$2200.00
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San Francisco, California 94111-3834 (650) 326-2400	4	☑ Authorized to b	e charged to deposit account
(650) 520-2400			
		. Deposit account number	
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David N. Slone Atty. Rep. No. 28,572	Sig	uspile	Date
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NO. 272 P. 5/14

Form PTO-1585
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Patents Only
Page 2

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- Additional name(s) and address(cs) of receiving party(ics): (Continued from Page 1)
- Additional application number(s) or patent number(s): (Continued from Page 1)

A. Patent Application No.(c) 10/241,105 09/706,489 10/076,182 10/171,434 60/363,724 10/243,924 09/782,882 09/859,069 10/161,838 60/252,784 09/799,916 09/899,001 10/300,438 10/087,040 09/899,014 09/898,988 09/899,004 09/880,230 09/954,662 10/216,600 09/941,325 10/093,844 10/279,388 09/992,087 09/992,849 10/118,070 10/099,392 10/098,805 10/306,826 10/080,789 10/095,794 10/093,843 10/150,810 10/126,189 10/401,416 10/147,181 10/242,213 10/262,404	
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10/262,404	10/242,213
	10/262,404

B. Patent No.(s) 6,490,089 6,381,387 6,525,352 6,535,319 6,439,728

EXHIBIT 3.02(b)

PATENT ASSIGNMENT

ASSIGNMENT AND TRANSFER OF PATENTS

WHEREAS, Network Photonics, Inc., a Delaware corporation, with offices at 4775 Walnut Street, Boulder, Colorado 80301 ("Assignor") owns certain patent applications and/or registrations, as listed in Exhibit A attached hereto and incorporated herein by this reference ("Patents"); and

WHEREAS, PTS Corporation, a Delaware corporation, with offices at 101 Innovation Drive, San Jose, California 95134 ("Assignee"), desires to acquire all of the right, title and interest of Assignor in, to and under the Patents;

WHEREAS, Assignor and Assignee have entered into a certain Asset Purchase Agreement, dated as of June 17, 2003 ("Assignment Agreement"), assigning, among other things, all right, title and interest in, to and under the Patents and in, to and under the registrations for same from Assignor to Assignee;

NOW, THEREFORE, for good and valuable consideration described in the Assignment Agreement, the receipt and sufficiency of which are hereby acknowledged, Assignor does hereby irrevocably sell, assign, transfer and convey unto Assignee all of its right, title and interest in and to the Patents, including all patent applications and divisions, continuations, continuations-in-part, reexaminations, substitutions, reissues, extensions and renewals of the applications and registrations for the Patents (and the right to apply for any of the foregoing); all rights to causes of action and remedies related thereto (including, without limitation, the right to sue for past, present or future infringement, misappropriation or violation of rights related to the foregoing); and any and all other rights and interests arising out of, in connection with or in relation to the Patents throughout the universe, including without limitation all foreign counterparts and foreign equivalents of any of the foregoing.

Assignor authorizes and requests the patent officials in the United States and in any and all foreign jurisdictions to issue any and all letters patent and foreign counterparts or equivalents thereof to PTS Corporation, as assignee of the entire interest of Assignor therein, and covenants that Assignor has full right to convey the entire interest herein assigned and that Assignor has not executed and will not execute any agreements in conflict herewith.

Assignor further agrees, for itself, its successors and assigns, to execute such further documents and to perform such further lawful acts as may reasonably be required to effectuate this assignment.

IN WITNESS WHEREOF, Assigned an authorized officer on this 17 th day of Jun	or has cau e. 2003.	ised this a	assignmen	i to be duly	y executed	bу
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Network Photonics, Inc.						
an authorized officer on this 17th day of June, 2003. Network Photonics, Inc. By:						
	hotonics, Inc. Colorado Ss. June 17, 2003, before me, the undersigned notary public in and for said County and onally appeared Steve Georgis personally known to me [or] proved to me on the basis of satisfactory evidence erson(s) whose name(s) Steve Georgis subscribed to the within instrument ged to me that Steve Georgis executed the same in his capacity(ies) and that, by his signature(s) on the instrument, the pereson pupon behalf of which the person(s) acted executed the instrument. y hand and official seal. My commission expires on April 7, 2004 Lating L. Sanderson Horil 7, 2004 Lating L. Sanderson					
authorized officer on this 17th day of June, 2003. etwork Photonics, Inc. PATE OF Colorado OUNTY OF Bouldar On June 17, 2003, before me, the undersigned notary public in and for said County and aie, personally appeared Steve Georgis personally known to me [07] proved to me on the basis of satisfactory evidence be the person(s) whose name(s) Steve Georgis subscribed to the within instrument are knowledged to me that Steve Georgis executed the same in his atthorized capacity(ies) and that, by his signature(s) on the instrument, the person entity (ies) upon behalf of which the person(s) acted executed the instrument. Witness my hand and official seal. And Commission expires on April 7 2004 Louints Street						
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county of Boulder) ss.						
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Network Photonics, Inc. By: Name: Stare Gentry: Title: Meanders Control STATE OF Colorado) ss. COUNTY OF Bouldar On June 17, 2003, before me, the undersigned notary public in and for said County and State, personally appeared Stave Georgis personally known to me [or] proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) Stave Georgis subscribed to the within instrument and acknowledged to me that Stave Georgis executed the same in his authorized capacity(ies) and that, by his signature(s) on the instrument, the person the entity(ies) upon behalf of which the person(s) acted executed the instrument. Witness my hand and official seal. SANO My commission expires on April 7, 2004 Colorado Horri 7, 2004 Colorado SANO My commission expires on April 7, 2004 Colorado Horri 1, 2004 Colorado Horri 1, 2004 Colorado Horri 2, 2004 Colorado						
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an authorized officer on this 17th day of June, 2003. Network Photonics, Inc. By:						
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My Commission Expires 04/07/04	•					

EXHIBIT A

PATENTS

TTC Ref Country	Title			Filing	Tanana Na	
ATTY(s) Handling 019930-000100	Wavelength Router	Inventor Weverka, Robert T.	Application No.	Date 11/16/1999	Patent No. 6501877	1ssue 12/31/
US	. "					
(DNS)	·	Roth, Richard S.	·	*		
019930-000110	Wavelength Router	Weverka, Robert T.	2389622	11/14/2000		
CA -					,	
(DNS)		Georgis, Steven P.				
		Roth, Richard S.				
019930-000110 CN	Wavelength Router	Weverka, Robert T.	00815769.3	11/14/2000		
(DNS)		Georgis, Steven P.	-			
(DN3)		Roth, Richard S.				
019930-000110	Wavelength Router	Weverka, Robert T.	00983709.7	11/14/2000		
EP EP	Travelength Route.	Weverka, Robert 1.	00303703.7	1111712000		
(DNS)		Georgis, Steven P.				
		Roth, Richard S.				
019930-000110	Wavelength Router	Weverka, Robert T.	2001-538854	11/14/2000		
JP						
(DNS)		Georgis, Steven P.				
		Roth, Richard S.				
019930-000110	Wavelength Router	Weverka, Robert T.	00/31448	11/14/2000		
PC				,		
(DNS)		Georgis, Steven P.				
		Roth, Richard S.				
019930-000110 US	Wavelength Router	Weverka, Robert T.	10/148710	5/29/2002		
1						
(DNS)	·	Georgis, Steven P.				
		Roth, Richard S.			ļ ·]
019930-000120 US	Wavelength Router	Weverka, Robert T.	10/278182	10/21/2002	·	
(DNS)		Georgis, Steven P.				
(5113)		Roth, Richard S.				
010070 000700	Wayalanaih Manitas Ga WDM		2406360	3/77/7001		ļ
019930-000200 CA	Wavelength Monitor for WDM Systems	Georgis, Steven P.	2406369	3/22/2001	ļ	
(DNS)	,	Weverka, Robert T.	•	1		
019930-000200	Wavelength Monitor for WDM	Georgis, Steven P.	1811343.5	3/22/2001	 	-
CN	Systems	·				
(DNS)		Weverka, Robert T.				
019930-000200	Wavelength Monitor for WDM	Georgis, Steven P.	01928317.5	3/22/2001		
EP	Systems					
(DNS)	•	Weverka, Robert T.				
019930-000200 JP	Wavelength Monitor for WDM Systems	Georgis, Steven P.	2001-576415	3/22/2001		
li .	Systems	Manager Date 7				
(DNS)		Weverka, Robert T.	•		•	·

						
TTC Ref Country		· · · · · · · · · · · · · · · · · · ·		Filing		
ATTY(s) Handling	Title Difffraction Grating With Reduced	Inventor Fabiny, Larry	Application No.	Date 9/10/2002	Patent No.	lssue [
019930-000940 US	Polarization-Dependent Loss	Faciny, Larry	10/241103	9/10/2002		
PMB (DNS)		Sarto, Tony		,		
019930-001000	Reduction of Polarization-Dependent	Fabiny, Larry	PCT/US01/47565	11/2/2001		
PC	Loss from Grating Used in Double-		. [
DJG PMB (DNS)	Pass Configuration		·			
						•
019930-001000	Reduction of Polarization-Dependent	Fabiny, Larry	09/706489	11/3/2000		
US	Loss from Grating Used in Double- Pass Configuration			·		
DJG PMB (DNS)	rass Configuration					
019930-001010 US	Reduction of Polarization Dependent Loss from a Grating Used in Double	Fabiny, Larry	10/076182	2/12/2002		
	Pass Configuration					
PMB (DNS)					-	
019930-001020	Reduction of Polarization-Dependent	Silveira, Paulo E. X.	10/171434	6/12/2002		
US	Loss in Double Pass Configurations			,		
PMB (DNS)		Sarto, Tony				2
		Fabiny, Larry		•		
		Voitel, Marko				
019930-001100	Variable Wavelength Attenuator for	Weaver, Samuel P.	60/363724	3/11/2002		
US	Spectral Grooming Using			•		
PMB (DNS)	Micromirror Routing					-
019930-001110	Variable Wavelength Attenuator for	Weaver, Samuel P.	PCT/US03/07902	3/11/2003	;	
PC	Spectral Grooming and Dynamic Channel Equalization Using					
PMB (DNS)	Micromirror Routing	Sarto, Andrew W.				
019930-001110	Variable Wavelength Attenuator for	Weaver, Samuel P.	10/243924	9/12/2002		
US	Spectral Grooming Using Micromirror Routing				,	
PMB (DNS)		Sarto, Anthony W.				
019930-001200	Focal Length Disperation	Weaver, Samuel P.	09/782882	2/13/2001		
US	Compensation for Field Curvature	·				
PMB (DNS)		Cahill, Raymond F.				
019930-001300	Athermalization of a Wavelength	Wendland Jr., R.G.	01/24242	7/31/2001		
PC DJG (DNS)	Routing Element			,	,	
	C.W. L.		00//20017	0.77000	6381387	4/30/2
019930-001300 US	Athermalization of a Wavelength Routing Element	Wendland Jr., R.G.	09/630817	8/2/2000	0381387	4/30/
DJG (DNS)					·	
019930-001400	Hidden Flexure Ultra-Planar Optical	Michalicek, M. A.	09/859069	5/15/2001	 	
US .	Routing Element	Michancek, M. A.	09/839009	3/13/2001		
RTB (DNS)						
019930-002000	Optical Routing Elements	Wendland, Jr., R.G.	10/161838	6/3/2002		
US	Optical Rodding Elements	Welldiand, Jr., K.G.	10/101838	0/3/2002		
RTB (DNS)	·					
019930-002200	Method to Reduce Release Time of	Muller, Lilac	60/252784	11/22/2000		
US	Micromachined Devices	Money, Chac	30/252/07		1	
PMB (DNS)		Staple, Bevan				
019930-002210	Method to Reduce Release Time of	Muller, Lilac	09/837362	4/18/2001	6525352	2/25/
US -	Micromachined Devices					.,

TTC Ref				Filing		· '
ATTY(s) Handling	Title	Inventor	Application No.	Date ^	Patent No.	Issue D
019930-000200 PC	Wavelength Monitor for WDM Systems	Georgis, Steven P.	PCT/US01/09442	3/22/2001		
(DNS)		Weverka, Robert T.	,t. ,			
019930-000200 US	Wavelength Monitor for WDM Systems	Georgis, Steven P.	09/551256	4/18/2000		
(DNS)		Weverka, Robert T.				
019930-000500 US	Linear Optical Beam Translator for Optical Routing	Weaver, Samuel P.	09/658158	9/8/2000		
PMB (DNS)		Weverka, Robert T.		·		
		Roth, Richard S.				
019930-000510 PC	Linear Optical Beam Translator For Optical Routing	Weaver, Samuel P.	01/28309	9/7/2001		
PMB (DNS)		Weverka, Robert T.	,			
		Roth, Richard S.				
019930-000600 PC	Binary Switch for an Optical Wavelength Router	Anderson, Robert L.	01/50524	12/20/2001		
PMB (DNS)					. ,	
019930-000600 US	Binary Switch for an Optical Wavelength Router	Anderson, Robert L.	09/745760	12/20/2000	6542657	4/1/2
PMB (DNS)		·	İ			
019930-000700	1X2 Optical Wavelength Router	Anderson, Robert L	01/50441	12/20/2001		
PC PMB (DNS)						
019930-000700 US	1X2 Optical Wavelength Router	Anderson, Robert L.	09/745459	12/20/2000	6535664	3/18/2
PMB (DNS)						
019930-000800 US	Wavelength Router with Staggered Input-Output Fibers	Anderson, Robert L.	09/747064	12/20/2000		
PMB (DNS)		Weaver, Samuel P.			,	
019930-000900 US	Diffraction Grating with Reduced Polarization-Dependent Loss	Fabiny, Larry	09/615300	7/13/2000	6449096	9/10/2
PMB (DNS)		Sarto, Tony				
019930-000910 US	Grating Fabrication Process Using Combined Crystalline- Dependent &	Muller, Lilac	09/669758	9/26/2000	6517734	2/11/2
PMB (DNS)	Crystalline-Independent Etching	Amett, Kenneth E.				
		Fabiny, Larry				
		Pister, Kristofer S.				12/2/
019930-000920 US	Diffraction Grating with Reduced Polarization-Dependent Loss	Fabiny, Larry	09/748687	12/21/2000	6490089	12/3/
PMB (DNS)						
019930-000930 PC	Diffraction Grating With Reduced Polarization-Dependent Loss	Fabiny, Larry	01/22229	7/11/2001		
PMB (DNS)		Sarto, Tony				
		Muller, Lilac				
		Amett, Kenneth E.				
SI .		Pisterf, Kristofer		1	1	

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TTC Ref Country	Title	Inventor	Application No.	Filing Date	Patent No.	, ,
ATTY(s) Handling 019930-002300 US	Method for Reducing Leaching in Metal-Coated MEMS	Staple, Bevan	09/799916	3/5/2001	ratent (vo.	Issue I
PMB (DNS)		Miller, David				
·		Muller, Lilac			·	
019930-002400 US	Optical Surface-Mount Lens Cell	. Anderson, David Paul	09/899013	7/3/2001		
PMB (DNS)		ı,				
019930-002500 US	MEMS-Based, Non-Contacting, Free-Space Optical Switch	Staple, Bevan	09/899002	7/3/2001		
PMB (DNS)		Roth, Richard S.				
019930-002600 US	Free-Space Optical Wavelength Routing Elements Based on Stepwise	Buzzetta, Victor	09/899000	7/3/2001	6535319	3/18/
PMB (DNS)	Controlled Tilting Mirrors	Staple, Bevan				
		Marinelli, David		·		
019930-002700 US	Two-Dimensional Free-Space Optical Wavelength Routing Element Based on Stepwise Controlled Tilting	Buzzetta, Victor	09/899001	7/3/2001		:
PMB (DNS)	Mirrors					
019930-002710 US PMB (DNS)	Two-Diminsional Free-Space Optical Wavelength Routing Element Based on Stepwise Controlled Tilting	Buzzetta, Victor	10/300438	11/19/2002	·	
019930-002800	Mirrors Systems & Methods for Overcoming	Miller, David	10/087040	2/28/2002		
US	Stiction Stiction	Miller, David	10/00/040	2/20/2002		
DMH (DNS)		Muller, Lilac				
		Anderson, Robert L.				,
019930-003000 US	Methods & Appartus for Providing a Multi-Stop Micromirror	Anderson, David Paul	09/899014	7/3/2001		
DMH (DNS)			,			
019930-003100	Systems & Methods for Overcoming	Anderson, David Paul	09/898988	7/3/2001		
US DMH (DNS)	Stiction Using a Lever	,	·			
019930-003200 US	Bistable Mirror with Contactless Stops	Muller, Lilac	09/899004	7/3/2001		
PMB (DNS)	3.003					
019930-003500 US	Micromirror Array Having Adjustable Angles	Anderson, Robert L.	09/880230	6/12/2001		,
PMB (DNS)		Staple, Bevan				
019930-003600	Dual-Wave Optical Shared	Roth, Richard S. Wahler, Ronald A.	09/954662	9/1/2/2001		
US PMB (DNS)	Protection Ring	Bortolini, Edward J.				
019930-003700 US	Method & Apparatus for Protecing Wiring & Integrated Circuit Device	Anderson, Robert L.	10/216600	8/9/2002		
WFV (DNS)	Thing at integrated Circuit Device	Reyes, David				

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ATTY(s) Handling	Title	Inventor	Application No.	Date	Patent No.	lssue I
019930-004000	MEMS Die Holder	Roberts, Joseph	09/941325	8/28/2001		
US	:					
PMB (DNS)	·					
019930-004400	Multimirror Stack for Vertical	Copeland, Frederick	09/941998	8/28/2001	6439728	8/27/
US	Integration of MEMS Devices in Two-Position Retroreflectors					
PMB (DNS)	I wo-Position Retroreflectors	•				
019930-004500	Optical Wavelength Cross Connect	Bortolini, Edward J.	10/093844	3/8/2002		
US	Architectures Using Wavelength	*				,
PMB (DNS)	Routing Elements	Barthel, Dirk]		
•		Weverka, Roben T.				
		Iraschko, Rainer R.				
		Morley, George D.			. `	
010070 004510	Optical Wavelength Cross Connect	Bortolini, Edward J.	PCT/US03/07422	3/10/2003		
019930-004510 PC	Architectures Using Wavelength	Dortollill, Duwald 1.	. 01/0303/07-22	3.10,2003		
PMB (DNS)	Routing Elements and Methods For	Barthel, Dirk				
FMB (DN3)	Performing In-Service U	Weverka, Robert T.				
		Íraschko, Rainer R.			•	
· ' ·		Morley, George D.		·		
019930-004510	Optical Wavelength Cross Connect	. Weverka, Robert T.	10/279388	10/23/2002		
US	Architectures Using Wavelength Routing Elements	X.				
PMB (DNS)	Roung Blemens					
019930-005500	Wavelength Router with a	Fabiny, Larry	09/992087	11/12/2001		
US	Transmissive Dispersive Element					
PMB (DNS)						1
						. '
019930-005600	High Efficiency, Low Polarization	Fabiny, Larry	09/992849	11/12/2001		
US	Depdendent Loss, Lamellar					
PMB (DNS)	Diffraction-Grating Profile & Production Process	Arnett, Kenneth E.				1
019930-005700	Survivable Ring Transmission	Iraschiko, Rainer R.	10/118070	4/5/2002		
US	System with Multiple Protection			.]		
PMB (DNS)	Classes	MacGregor, Michael				
		H			٠.	
•		Moriey, George David				
		Stamatelakis, Demetr			5.5	
		Wahler, Ronald A.				
019930-005800	One-to-M Wavelength Routing	Cizek, Nicholas C.	10/099392	3/13/2002		
US ·	Element					
PMB (DNS)		Weaver, Samuel Paul			·	
019930-005900	Two-By-Two Wavelength Routine	Cizek, Nicholas C.	10/098805	3/13/2002		
US	Element Using One Two- Position MEMS Mirrors			1		1
G2B PMB (DNS)	MICINIS INTITUIS					
	<u> </u>					
019930-006000	Method for Sub Network Connection	Weverka, Robert T.	10/306826	11/26/2002		
US	Protection in All Optical Networks		, ,		1 .	
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RCL (DNS)		1				1

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ATTY(s) Handling 019930-006100	Methods for Affirming Switched	Inventor Staple, Bevan	Application No. 10/080789	Date - 2/21/2002	Patent No.	Issue
US	Status of MEMS Based Devoies	Stapic, Devail	10/080789	2/21/2002	-	
PMB (DNS)		Anderson, Robert L.				
019930-007300	Tunable DWDM Demultiplexer	Christopher S., Alaimo	PCT/US03/07899	3/11/2003		
PC					٠.	
PMB (DNS)		Bortolini, Edward J.				
	: \	DeFrancesco, Marc				
		Honea, Keith	٠,			
		Marinelli, David				
	` `	Mechels, Steven	٠.	•		
		Rice, James				
		Weverka, Robert T.		:		
		Kiruluta, Andrew J. M.				
		Wood, Christopher Stephen				
		Kaliskl, Robert W.		,		
019930-007300	Tunable DWDM Demultiplexer	Christopher S., Alaimo	10/095794	3/11/2002		-
US		,				
PMB (DNS)		Bortolini, Edward J.	<i>:</i> "			
		DeFrancesco, Marc				
		Honea, Keith			·	
	· ·	Marinelli, David				
		Mechels, Steven				
		Rice, James				
		Weverka, Robert T.	11			
		Kiruluta, Andrew J. M.				
019930-007500	Methods for Performing In-Service	Bortolini, Edward J.	10/093843	3/8/2002		
US	Upgrades of Optical Wavelength Cross Connects	,		٠.		
PMB (DNS)	Cross Connects				,	
019930-007900	Bidirectional Wavelength Cross-	Bortolini, Edward J.	10/150810	5/17/2002	·	
US	Connect Architectures Using Wavelength Routing Elements	•	· .			
PMB (DNS)		Barthel, Dirk				
		Weverka, Robert T.				
		Weaver, Samuel Paul		,		
		Silveira, Paulo E. X.				
019930-008000 US	Multi-City DWDM Wavelength Link Architectures & Methods for	Alaimo, S.Christophe	-10/126189	4/19/2002		
PMB (DNS)	Upgrading	Barthel, Dirk				
•		Morley, George David				
		Bortolini, Edward J.				
		Urie, Richard W.				
019930-008100	Optical Routing Mechanism With	KAPLAN, MICHAEL	10/401416	3/28/2003		
US	Integral Fiber Input/Output					
PMB (DNS)	Arrangement on MEMS Die		' '			1

TTC Ref Country ATTY(s) Handling	Title	Inventor	Application No.	Filing Date	Patent No.	lssue I
019930-008200 US	Variable-Density Optical Cross Connect Architectures & Upgrades	Weverka, Robert T.	10/147181	5/15/2002		
PMB (DNS)		Bortolini, Edward J. Urie, Richard W. Clark, Phillip		·		-
019930-008300 US PMB (DNS)	Surfactant-Enhanced Protection of Micromechanical Components from Galvanic Degradation	Staple, Bevan	10/242213	9/1 2/2002		
019930-008400 US PMB (DNS)	Floating Entrance Guard for Preventing Electrical Short Circuits	Miller, David	10/262404	9/30/2002	·	
019930-008800 US PMB (DNS)	Equipment Monitoring Techniques for Optical Switching & Wavelength Switching Devices & Systems					